IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No.: 91943.000249 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the application of: Thomas Powers	Confirmation No.: 8194
	Examiner: ANTHONY, Joseph D.
US Application No.: 10/677,582	
	Group Art Unit: 1714
Filed: 10/02/2003	

For: OXYGEN SCAVENGER FOR LOW MOISTURE ENVIRONMENT AND METHODS OF USING THE SAME

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APPEAL BRIEF PURSUANT TO 37 C.F.R. 1.192

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APPELLANT'S BRIEF ON APPEAL

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-8 which was contained in the Office Action mailed October 19, 2006. A timely Notice of Appeal was filed April 19, 2007.

REAL PARTY IN INTEREST

Multisorb Technologies, Inc. is the real party in interest.

RELATED APPEALS AND INTERFERENCES

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

STATUS OF THE CLAIMS

Claims 1-8 are pending and rejected. Claims 9 and 10 are cancelled. Claims 11-22 are withdrawn.

Claims 1-8 are appealed.

STATUS OF AMENDMENTS

No Amendments after Final were submitted.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention contains one independent claim that is claim 1, it provides an oxygen absorbing composition that is suitable for use in low humidity environments, see page 3, lines 6 and 7. The composition comprises a solution comprising 10-20% water, see page 3, line 14, a humectant salt and an electrolyte salt, see page 3, line 9. The solution is characterized by a water activity of below 0.6, see page 9, lines 14-17. The solution is mixed with a water binding carrier and at least one oxygen reducing agent to form the claimed oxygen absorbing composition, see page 9, line 20 – page 10, line 2.

There are no means plus function claims.

GROUNDS OF REJECTION TO BE REVIEWED BY THE BOARD

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Whether Claims 1-8 are anticipated under 35 U.S.C. 102 over Saari et al, U.S. Patent Number 6,921,026.

2. Whether claims 1-8 are obvious under 35 U.S.C. 103 over Saari et al. U.S. patent number 9,921,026.

3. Whether claims 1-8 are anticipated under 35 U.S.C. 102 as anticipated by McKedy U.S. patent number 5,262,375.

4. Whether claims 1-8 are anticipated under 35 U.S.C. 102 over McKedy U.S. patent number 6,248,690.

5. Whether claims 1-8 are obvious under 35 U.S.C. 103 over McKedy U.S. patent number 5,262,375.

6. Whether claims 1-8 are obvious under 35 U.S.C. 103 over McKedy U.S. patent number 6,248,690.

7. Whether claims 1-8 are unpatentable under 35 U.S.C. 103 over Waterman publication number U.S. 2003/0042166.

ARGUMENT

In the Final Rejection of October 19, 2006 the Examiner stated the rejection under 35 U.S.C. 102(e) and 35 U.S.C. 103(a) over Saari et al. U.S. patent number 6,921,026 as follows:

> "Saari et al teach a humidity control device for use in maintaining a desired humidity, said device including a water vapor permeable pouch and a thickened saturated salt solution, said pouch being formed of a thin wall polymer film through which water vapor may pass, said thickened saturated salt solution comprising water, salt, and a thickening agent, said salt being present in an amount of between 20 and 75 percent by weight based on the

> weight of the combination of water and salt, said thickening agent being present in amount sufficient to thicken the salt solution, said salt solution being contained within the polymeric pouch and sealed from escape from the pouch, said pouch containing the thickened salt solution being contained within a protective case to protect the pouch from rupture, and the pouch containing 0.25 to 75% oxygen scavenger and a mold inhibitor, see abstract, column 3, line 26 to column 4, line 31 and claim 24. The oxygen scavenger is preferably reduced iron with particle size between 100 and 325 mesh, see examples and claims 37-41. Saari et al directly discloses that the use of different solutes (e.g. salts or mixtures of salts) at different concentration amounts will result in thickened salt solutions that have various relative humidity levels (i.e. water activity) from 97% to 6%, see column 4, line 46 to column 5, line 13. Applicant's claims are deemed to be anticipated over the examples.
>
> In the alternative, it is unclear from the examples if anyone of them actually has a relative humidity (i.e. water activity) level that is within applicant's claimed range of below 0.6 (i.e. below 60%). It would have been obvious to one having ordinary skill in the art to use the direct disclosure of Saari et al as strong motivation to actually make thickened humidity/oxygen absorbing compositions that have a relative humidity (i.e. water activity) level that is within applicant's claimed range of below 0.6 (i.e. below 60%) since such is directly suggested by the reference in column 4, line 61 to column 5, line 4."

This rejection is respectfully traversed and reversal is requested.

Arguments concerning 35 USC 102 Rejection over Saari et al.

In claim 1, the only independent claim, a solution is formed of it a mixture of 10-20% water with a humectant salt, an electrolyte salt, a water binding carrier, and at least one oxygen reducing agent such that the mixture is characterized by a water activity below 0.6. Saari et al. does not disclose any solution with the invention materials that has a water activity of below 0.6. Saari further does not disclose a mixture having 10-20% water. Therefore, as Saari et al. does not disclose a composition having these numerical values Saari et al. is not anticipatory of the invention under 35 USC 102. Therefore, the reversal of the anticipation rejection is respectfully requested.

Arguments concerning 35 USC 103 with Rejection over Saari et al.

Saari et al. is directed to a different purpose than the invention purpose of absorbing oxygen in a low humidity environment. Saari neither shows nor suggests applicant's invention. First, while Saari is addressed to an oxygen absorber, nothing in Saari suggests that the product could be used in environments where low relative humidity is required. Furthermore, Saari doesn't appreciate the conflict created by an oxygen absorber's need for moisture and the desirability in some cases of absorbing oxygen in a low relative humidity environment.

Admittedly, Saari does disclose a list of solutes that provide a wide range of humidity levels from 6% to 90% but Saari never mentions or discusses how oxygen absorption can be efficiently carried out at the lower humidity levels. In fact, other than simply listing the compounds that can be used to obtain various relative humidity, Saari never discusses a composition having a water activity less than 0.7 or demonstrates an ability to form such materials. At such levels (0.7 and above), the humidity requirements of oxygen absorbers are easily satisfied and the issue addressed by the present invention is simply not present. In fact , as set forth in Col 5, lines 14-26, Saari intends to increase the humidity in food humidors for example. As Saari says at Col. 5, line 56, an important function is to get as much transmission of vapor as possible and practical...the higher the transmission rate, the better the performance in retaining the proper moisture level in the material being protected in the chamber. Saari's list of compounds providing various humidity levels doesn't meet applicant's claim requirement for a humectant salt and an electrolyte salt. The Examiner has not provided any support for the argument that the compounds listed in Saari, such as, lithium bromide are humectant salts and electrolyte salts that produce low humidity levels. Further, even if Saari et al. materials could be selected to perform at low humidity, Saari teaches away from the 10-20% water level claimed as in Saari et al. the preferred amount is 40-70% water, note column 8 lines 3 and 4. Saari also teaches away from a water activity below 0.6 as high humidity uses are contemplated.

Furthermore, appellant's claim 1 requires a water binding carrier mixed with the humectant salt and electrolyte salt solution. As already discussed, the water binding carrier reduces the moisture available to be released into the environment being protected while making that moisture available to the oxygen reducing agent which is blended with the mixture. Saari does discuss thickening the salt solution with vegetable gum or other hydrocolloids but the Examiner has not argued and Saari provides no support for these thickeners having water binding characteristics as claimed by applicant.

In summary, notwithstanding the list of solutions with low water activity, Saari addresses an entirely different problem from appellant and does so in an entirely different way. Saari intends to increase the moisture in a package while applicant provides an oxygen absorbing composition that continues to function in low ambient humilities and teaches away from any modification for low humidity use of the O_2 absorbing compositions. Therefore, reversal of the rejection under 35 USC 103, is respectfully requested.

In the Final Rejection of April 19th, 2006 the Examiner stated the rejection under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McKedy U.S. patent number 5,262,375 or McKedy U.S. patent number 6,248,690 in the following manner:

> "McKedy '375 teaches an oxygen-absorbing composition containing particulate annealed electrolytically reduced iron of between about 100 mesh and 325 mesh in an amount of about up to 99.6% by weight, a salt such as sodium chloride **(reads on applicant's electrolyte salt or humectant salt)** in an amount by weight of about up to 3.5%, and optionally a water-attracting and supplying component such as silica gel **(reads on applicant's claimed carrier component and applicant's claimed humectant salt solution)** of a mesh size of between about 30 mesh and 325 mesh in an amount by weight of up to about 80%. A packet for absorbing oxygen including a stain and grease resistant envelope containing the oxygen-absorbing composition. A grease and stain resistant laminate consisting of plies of various plastics and grease and stain resisting paper, see abstract, column 3, lines 5-62 and claims. The disclosed oxygen absorbers are thus very useful in absorbing oxygen from a dry environment. Applicant's claims are deemed to be anticipated over Example 3, that sets forth 3 different formulations that are deemed to have a water activity (i.e. equilibrium relative humidity (ERH)) that are no higher than applicant's claimed maximum amount even though the patent does not expressively state what the water activity is for the taught oxygen absorbing compositions.
>
> McKedy '690 teaches an oxygen-absorbing composition containing particulate annealed electrolytically reduced iron of between about 100 mesh and 325 mesh in an amount of up to 63%

> by weight, a salt such as sodium chloride **(reads on applicant's electrolyte salt or humectant salt)** in an amount by weight of about up to 3.5%, and a water-supplying component such as silica gel **(reads on applicant's claimed carrier component and applicant's claimed humectant salt solution)** or activated carbon with liquid water therein of a mesh size of between about 20 mesh and 50 mesh in an amount by weight of up to about 85% in an envelope which will resist the passage of liquid water out of the envelope but will permit flow of oxygen into the envelope at a satisfactory rate. The disclosed oxygen absorbers are thus very useful in absorbing oxygen from a dry environment, see abstract, column 1, lines 50-67, and column 3, line 40 to column 4, lines 67. Applicant's claims are deemed to be anticipated over Examples 3-15 that are deemed to have a water activity (i.e. equilibrium relative humidity (ERH)) that are no higher than applicant's claimed maximum amount even though the patent does not expressively state what the water activity is for the taught oxygen absorbing compositions. Note McKedy '690 Example 3 uses silica gel as the water attracting and supplying component (reads on applicant's carrier component), whereas Examples such as 5, 10, 12 and 14 use hydrated activated carbon as the water attracting and supplying component.
>
> In the alternative, the McKedy patents only directly teach (i.e. by way of an example) a three-component composition wherein silica gel is one of the components. It would have been obvious to use another water-attracting and water supplying component other than silica gel such as a zeolite, molecular sieve and salts, see column 3, lines 51-62 of '375. Furthermore, applicant's claims read on both a three component composition (wherein the carrier component also functions as an electrolyte salt component or a humectant salt component) and on a four component composition (wherein the carrier component, electrolyte salt component and humectant salt solution component are all different. It would have been obvious to one having ordinary skill in the art to use the disclosure of either McKedy patent as motivation to use admixtures of one or more of the water-attracting and water supplying component, or electrolyte salt component, see column 3, lines 26-35 of '375, since the courts have constantly declared that to use two or more components together for the same purpose that they are taught to be individually useful is not patentable because they are expected to complement each other, In re Kerhoven, 205 USPQ 1069 (CCPA 1980)."

This rejection is respectfully traversed and reversal is requested.

Arguments concerning 35 USC 102 Rejection over McKedy et al. US 6,248,690.

In claim 1, the only independent claim of the instant application, a solution is formed of it a mixture of 10-20% water with a humectant salt, and an electrolyte salt, such that the solution is characterized by a water activity below 0.6. McKedy et al. (690) does not disclose a solution in accordance with the invention that has a water activity of below 0.6. McKedy et al. (690) further does not disclose a mixture having 10-20% water (much less one with a water activity of below 0.6). McKedy et al. (690) also discloses particulate material whereas the instant claims require a solution comprising water, a humectant salt and an electrolyte salt. Therefore, as McKedy et al (690) does not disclose a solution or a composition having the claimed numerical values McKedy et al. (690) is not anticipatory of the invention under 35 USC 102. Therefore, the reversal of this rejection is respectfully requested.

Arguments concerning 35 USC 102 Rejection over McKedy et al. US 5,262,375.

In claim 1 of the instant application, the only independent claim, a solution is formed of it a mixture of 10-20% water with a humectant salt and an electrolyte salt, such that the solution is characterized by a water activity below 0.6. McKedy et al. (375) does not disclose a solution in accordance with the invention that has a water activity of below 0.6. McKedy et al. (375) further does not disclose a solution having 10-20% water. McKedy et al. (375) also discloses particulate material whereas the instant claims require a solution comprising water, a humectant salt and an electrolyte salt. Therefore, as McKedy et al (375) does not disclose a solution or a composition having these numerical values McKedy et al. (375) is not anticipatory of the invention under 35 USC 102. Therefore, the reversal of this rejection is respectfully requested.

Arguments concerning the 35 U.S.C. 103 rejection of McKedy et al, U.S. 6,248,690 and McKedy U.S. 5,262,375

It is respectfully urged that the McKedy patents do not make obvious the instant invention. Referring first to McKedy '375, appellant disagrees with the Examiner's characterization of McKedy in a couple of respects. First of all, McKedy specifically describes silica gel as the water attracting and supplying (humectant) component of the composition. Even if, and the Examiner offers no evidence of this, sodium chloride could be the electrolyte, which is how McKedy describes it, or the humectant salt; clearly McKedy does not use sodium chloride as the humectant, but instead uses silica gel. The problem is that silica gel is not a salt and therefore doesn't meet the humectant salt limitation of applicant's claim. There is nothing in McKedy that suggests, even if it is possible, that the electrolyte, sodium chloride, is also a humectant salt and consequently, even if it is possible to provide sodium chloride with water bound to it so as to act as a humectant, McKedy does not show or suggest this. Appellant submits that not all sodium chloride acts as a humectant, it is necessary to bind water to the sodium chloride for it to function as a humectant and McKedy does not suggest doing this. In addition, sodium chloride does not bind water sufficiently to reduce water activity below 0.6.

Furthermore, the Examiner appears to acknowledge that McKedy ('375) doesn't specifically disclose a water activity less than .6 but states that one of the formulations set forth in example 3 is deemed to have a water activity no higher than appellant's claimed maximum. Appellant respectfully submits that the Examiner's argument does not make out a prima facie case of obviousness. McKedy provides a composition that is especially designed for absorbing oxygen in low temperature environments. As the Examiner clearly understands, as the temperature is reduced, the relative humidity increases and consequently, plenty of moisture for supporting the oxygen absorbent reaction would be expected to be present in low temperature environments. Why therefore would anyone expect McKedy to show or suggest appellant's invention which is designed to operate in environments where the relative humidity is low. Appellant respectfully submits that more than the Examiner's supposition is required to demonstrate that applicant's invention is obvious over McKedy '375.

Moreover, while the Examiner states that the formulations described in McKedy '690 and McKedy '375 are "deemed" to have a water activity (i.e., equilibrium relative humidity (ERH)) that it is no higher than appellant's claimed maximum amount, the Examiner gives no basis whatsoever for this statement. No calculations are presented or suggested to operate at ambient temperature and low humidity and the Examiner acknowledges that the McKedy patents are silent as to the ERH or water activity of his composition.

Further, with respect to the obviousness argument, the Examiner appears to acknowledge that silica gel, the water attracting and supplying component is not a salt but suggests that it would be obvious to use another water attracting and supplying component such as salt. The Examiner, however, does not give any basis for this statement. The portion of McKedy '375 the Examiner refers to suggests adding the electrolyte-providing salt to the silica gel not replacing the silica gel with a salt. McKedy '690 mentions activated carbon as a possible substitute water supplying component but activated carbon is also most assuredly not a salt. Furthermore, as discussed in connection with McKedy '375, nothing in McKedy '690 suggests appellant's water activity levels.

Therefore, it is respectfully requested that the rejections under 35 USC 103 over McKedy (375) and McKedy (690) be reconsidered and withdrawn as these references do not disclose the claimed combination of the materials to arrive at a water activity of below 0.6 in a composition with between 10 and 20% water.

Arguments concerning the 35 USC 103 Rejection over Waterman Publication Number US 2003/0042166.

In the Final Rejection of October 19, 2006 the Examiner states the rejection under 35 U.S.C. 103 over Waterman publication Number US 2003/0042166 as follows:

> "Waterman discloses pharmaceutical kits that reduce or prevent oxidative degradation of oxygen-sensitive pharmaceutically active ingredients in solid unit dosage forms that are supplied in oxygen permeable containers. Stabilization of the active ingredient which is in a low-humidity environment in is accomplished by incorporating an oxygen absorber into a sealed oxygen permeable container, see abstract. The disclosed oxygen-absorbing composition for a low-humidity environment includes a reduced metal (e.g. electrolytic iron) and an accelerator having at least one of iodide and bromide. The accelerator may have at least one of a metallic iodide salt and a metallic bromide salt. The reduced metal and the accelerator may be included in a dry state and the oxygen-absorbing composition may take the form of particles, see document sections [0019], [0020] and [0021]. Optionally adjuvants may be incorporated into the oxygen absorbing compositions such as *moisture-holding materials* such as activated carbon, silicas, zeolites, molecular sieves, hydrogels, and diatomaceous earth (these components read on applicant's carrier component), see section [0021. Also note that the disclosure of Hatakeyama et al. U.S. Patent Number 6,133,361 is incorporated by reference, see section [0021].

> Waterman have been described above and differs from applicant's claimed invention in that there is no direct teaching (i.e. by way of an example) to an oxygen absorbing composition that actually comprises a carrier material such as a water-absorbing/releasing material. It would have been obvious to one having ordinary skill in the art to use the disclosure of Waterman as strong motivation to actually incorporate a water absorbing/releasing carrier material into the oxygen absorbing compositions taught by each patent since such an addition is strongly suggested by the disclosure of each reference. Furthermore, applicant's claimed water activity (i.e. equilibrium relative humidity (ERH)) for the oxygen absorbing compositions of claims 1-8 are deemed to be inherently met by the oxygen absorbing compositions disclosed by Waterman even though it does not expressively state what the water activity is for their taught oxygen absorbing compositions."

This rejection is respectfully traversed and reversal is respectfully requested.

The Examiner appears to acknowledge that Waterman neither shows nor suggests applicant's carrier or applicant's humectant salt. The Examiner states however that it would have been obvious to incorporate a water-absorbing/releasing carrier material but doesn't specifically say why. Applicant respectfully submits that to the extent that Waterman relates to a kit for oxygen sensitive drugs that may well be moisture sensitive as well, the addition proposed by the Examiner would not be obvious. Moreover, Waterman actually considers this exact situation and proposes a different solution. As set forth in paragraph 19, two types of oxygen absorbers are contemplated. If the drug is moisture sensitive, an ultraviolet activated oxygen absorber can be used. If the drug is not moisture sensitive then a self-activating absorber is preferred. Self activating oxygen absorbers have water activity above 0.7. Nowhere is there any suggestion to provide a separate oxygen-absorbing composition or to provide a humectant salt for use with a moisture sensitive drug for use at low humidity.

Waterman does discuss the use of moisture activated oxygen absorbers, but Waterman does not utilize them with drugs sensitive to high humidity. For moisture sensitive drugs an ultraviolet activated oxygen is utilized. Waterman actually teaches away from the invention as Waterman teaches to avoid water activated oxygen absorbers for low humidity uses such as contemplated in the instant invention. There's no disclosure of the use of a humectant salt and an electrolyte salt in a solution with 10-20% water such that the solution has a water activity of below 0.6.

There is no teaching or suggestion in Waterman that would lead one to the utilization of water activated oxygen absorbers for oxygen absorption at low humidity and in fact the teachings are away from such use.

Response to Evidence Arguments in Paragraph 6 of the Final Rejection.

In paragraph 6 of the Final rejection of October 19, 2006 the Examiner responds to previous arguments of the applicant as follows:

> "Applicant's arguments filed 08/14/06 with the amendment have been fully considered but are not persuasive to put the application in condition for allowance for the reasons set forth above. Additional examiner comments are set forth next. One of applicant's main arguments for patentability over the applied prior-art references is applicant's assertion that the applied prior-art references do not expressively disclose that their compositional components have the same intended use as applicant intends for his compositional components. This argument of applicant is not only misleading it is deemed to be moot even if it were totally true. Applicant is reminded that the claims being examined are compositional claims that must absorb oxygen when used. All of the applied prior-art compositions clearly perform this function of oxygen absorbing. Not only that, the prior-art compositions contain all of applicant's required components and meet applicant's claimed water percent concentration range and water activity limit of below 0.6. The fact that the prior-art may not call their salt components by applicant's name of electrolyte salt or humectant salt is totally irrelevant since they all use salts that read on applicant's claimed and disclosed salts and the compositions containing the salts meet all of applicant's claim limitations/parameters. Applicant also argues that the applied prior-art references have "different" intended uses for their oxygen absorbing compositions than does applicant have for his oxygen absorbing compositions. Such an argument is on its face moot since the claims being examined are composition claims not method of use claims.
>
> In regards to the applied McKedy Patents, applicant tries to establish that Example 3 of McKedy U.S. Patent Number 5,262,375, has a water content that is less than applicant's claimed amount of 10-20 weight percent. In the prior-art rejection the Examiner clearly stated that McKedy's Example 3 set forth **3 different formulations**. It is well noted by the examiner that applicant only choose to calculate the water content of formulation

1 which does in fact have a water content less than applicant's claimed amount of 10-20 Wt. %. Now what about formulations 2-3 of Example 3? The calculated water content of formulation 2 and 3 are clearly within applicant claimed range of 10-20 water weight percent. Referring to formulation 3, see column 6, lines 42-46, a composition was made that contains 0.85 grams of mesh annealed electrolytic reduced iron and 1.36 grams of silica gel containing 26% water and 1.5% sodium chloride. The total weight of the composition is thus 0.85 grams + 1.36 grams + 1.5% sodium chloride which is a little over 2.21 grams (i.e. 085 + 1.36). The calculated grams of water contained in the silica gel is (1.36 x .26 = 0.35 grams water). The weight percentage of water in the composition as a whole is thus approximately (0.35/2.21) x 100 = 15.8 weight %. If the same calculation was done for formulation 2, see column 6, lines 12-16, the calculated water content of the composition would be about 14.0 weight percent. AS such, both formulations 2-3 of Examples 3 clearly fall within applicant's claimed water concentration ranges of 10-20 weight percent.

The following examiner comments were made in the preceding office action mailed 02/13/06, and are being repeated here because they are still deemed to be relevant to the examined claims. Applicant's arguments filed 01/09/06 with the amendment and RCE have been fully considered but are not persuasive to put the application in condition for allowance for the reasons set forth above. Additional examiner comments are set forth next. Applicant continues to make the argument that applicant's claims, see independent claim 1, require distinct components for the reducing agent, the carrier, the humectant salt, and the electrolyte salt, see pages 9-10 of the REMARKS section of applicant's amendment filed with the RCE. The examiner totally disagrees with applicant's opinion on this matter. The truth is that the reducing agent, the carrier, the humectant salt, and the electrolyte salt, are functional characteristics of the component and/or components that must be present in the impendent claim 1. Thus a single component may be able to function as the reducing agent, the carrier, the humectant salt, and the electrolyte salt. Certainly a single component can function as a reducing agent, a humectant salt and an electrolyte salt as admitted to by applicant in their specification, see page 4, lines 1-10. It is thus clear that not only does the examiner disagree with applicant's above argument, but applicant's own specification also disagrees with applicant's arguments made in the amendment filed with the RCE.

Finally applicant requested where in the Waterman patent there is a disclosure to: "the use of a humectant salt in addition to the use of a carrier, along with an electrolyte salt". Applicant's attention is drawn to the above examiner remarks. Furthermore, applicant's

> attention is drawn to sections [0019] through [0021] of the reference. Also note that U.S. Patent Number 6,133,361 was incorporated by reference which directly discloses additives such as bromide salts, see column 6, lines 18-30 of said patent."

The appellant respectfully traverses the additional arguments of the Examiner for the following reasons:

The Examiner states that the arguments concerning the applying prior art references as not disclosing compounds for the same use as the applicant is not relevant. The Examiner also states that the applicant's arguments that the materials of the prior art references have a different intended usage are moot as the claims are composition claims. However, it is respectfully urged that the arguments are pertinent in that modification of the compositions disclosed in references would not be obvious as it would be contrary to the intended purpose of the compositions to modify them to be suitable for the applicant's purpose. For instance the materials of Sari et al. are intended for use in a high humidity product. Modification of these materials in order to be applicant's materials would be a modification away from a product for high humidity use. Therefore the Saari reference in fact teaches away from the instant invention materials. The allegation that the Saari materials could be modified to be like the applicants requires some teaching in the reference that would lead to a desire for a low humidity useful product and this is contrary to the purpose of Saari et al.

With regard to the McKedy (375) the Examiner states that the formulations 2 and 3 of example 3 would be within the 10-20 water weight percent claimed by the applicant. However, the materials in the example would not meet other limitations claimed, in that McKedy materials are not disclosed as a solution comprising water, and water binding carrier, and humectant salt and electrolyte salt characterized by a water activity below 0.6. It appears that these McKedy materials are particulate not a solution and do not contain an electrolyte salt. The performance of the solution material has not been shown to be the same as particulate material with respect to the water absorption. The Examiner has not presented any evidence that the McKedy materials are in solution or that particulate materials are equivalent to solution materials.

With respect to the Waterman publication the Examiner points out the use of a humectant salt in addition to a carrier and electrolyte salt. Utilizing the patent 6,133,361, incorporated into Waterman, the Examiner points out that bromide salts are disclosed. Nevertheless, Waterman does not meet the terms of the claims as it relates to particulate material for use at high humidity. In contrast the claims material is a solution having a particular amount of water present as well as having a water activity below 0.6. Neither of these properties is disclosed or suggested in Waterman as Waterman teaches away from use of these materials as high humidity. Waterman uses entirely different materials for low humidity applications.

SUMMARY

The references do not anticipate or suggest the oxygen absorbing composition comprising a solution of 10-20% water, humectant salt, and an electrolyte salt characterized in that the water activity is below 0.6, or mixing the solution with a water binding carrier and an oxygen absorbing composition.

CONCLUSION

For the above reasons, Appellant respectfully requests that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1-8.

Respectfully submitted,

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APPENDIX I - CLAIMS ON APPEAL

IN THE CLAIMS:

1. An oxygen absorbing composition comprising:

10-20 wt% water;

a solution comprising:

the water;

a humectant salt ; and

an electrolyte salt;

the solution characterized by a water activity below 0.6;

a water binding carrier mixed with said humectant salt and electrolyte salt solution; and at least one oxygen reducing agent blended with said mixture.

2. The oxygen absorbing composition of claim 1 wherein the composition has a water activity below 0.59.

3. The oxygen absorbing composition of claim 1 wherein the composition solution has a water activity below 0.55.

4. The composition of claim 1 wherein the reducing agent is selected from the group consisting of iron, copper, zinc, sulfides, sulfites, ascorbic acid, salts of ascorbic acid, chlorine, iodine, bromine, carotenoids, tocopherol, polyphenols, and combinations thereof.

5. The composition of claim 1 wherein the reducing agent is 200 mesh iron powder.

6. The composition of claim 1 wherein the humectant salt is selected from the group consisting of sodium chloride, calcium chloride, lithium chloride, iodides, carbonates, sulfate salts, and combinations thereof.

7. The composition of claim 1 wherein the electrolyte salt is selected from the group consisting of sodium chloride, calcium chloride, potassium iodide, lithium chloride, and combinations thereof.

8. The composition of claim 1 wherein the carrier is selected from the group consisting of silica, clay, cellulose, natural and synthetic silicates, a gelling agent, and combinations thereof.

APPENDIX II EVIDENCE

None

RELATED PROCEEDING APPENDIX III

None